Challenge TB - <Democratic Republic of Congo >
Year 2
Annual Report
October 1, 2015 – September 30, 2016

November 9, 2016

Cover photo: *TB laboratory during an EQA visit in Katakokombe Health Zone in April 2016 (Photo credit: Dr Stephane Mbuyi)*

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List of Abbreviations and Acronyms

ALTB	Ambassadeur de lutte contre la tuberculose
ART	Anti-Retroviral Therapy
ATS	American Thoracic Society
CAD	Club des Amis Damien
CAG	Cellule d'appui à la gestion
CBO	Community Based Organisation
CCM	Country Coordinating Mechanism
CPLT	Coordination Provinciale de Lutte contre la Lèpre et la Tuberculose
CPT	Cotrimoxazole Preventive Therapy
CSDT	Centre de Santé de Diagnostic et Traitement
CTB	Challenge TB
DOT	Directly Observed Therapy
DRC	Democratic Republic of Congo
DST	Drug Sensitivity Test
EMMP	Environmental Mitigation and Monitoring Plan
EQA	External Quality Assurance
EQE	Equateur Est
FFP	Fondation Femmes Plus
GF	Global Fund
GLI	Global Laboratory Initiative
HCW	Health Care Worker(s)
HIV	Human Immunodeficiency Virus
HR	Human Resources
HZ	Health Zone
IHP+	Integrated Health Project plus
IP	Implementing Partners
IPT	Isoniazid Preventive Therapy
IRD	Interactive Research & Development
KAP	Knowledge's, Attitudes and Practices
KNCV	KNCV Tuberculosis Foundation
LNAC	Ligue Nationale Antituberculeuse et Antilépreuse du Congo
LTBI	Latent TB Infection
MDR-TB	Multidrug-Resistant Tuberculosis
MOH	Ministry of Health
MSH	Management Sciences for Health
NA	Not available

NGO	Non-Governmental Organization(s)
NRL	National (TB) Reference Laboratory
NSP	National Strategic Plan
NLSP	National Laboratory Strategic Plan
NTP	National Tuberculosis Program
OAC	Organisation à assise communautaire
OR	Operational Research
PATH	Program for Appropriate Technology in Health
PATI-V	Programme Anti Tuberculeux Intégré V
PATIOR	Programme Anti Tuberculeux Intégré pour la Recherche Operationnelle
PNCNS	Programme National des Comptes Nationaux pour la Santé
PEPFAR	U.S. President's Emergency Plan for AIDS relief
PLHIV	People living with HIV
PNLS	Programme National de Lutte contre le Sida
PNLT	Programme National de Lutte contre la Tuberculose
PRL	Provincial Reference Laboratory
Q	Quarter
SCMS	Supply Chain Management System
STTA	Short Term Technical Assistance
TB	Tuberculosis
TB-HIV	Tuberculosis and Human immunodeficiency virus
TEP	Tuberculose Extra-Pulmonaire
TPM+	Tuberculose Pulmonaire à Microscopie positive
TPMO	Tuberculose Pulmonaire à Microscopie négative
TSR	Treatment Succes Rate
UNDP	United Nations Development Program
The Union	International Union Against Tuberculosis and Lung Disease
USAID	United States Agency for International Development
WHO	World Health Organization
XDR-TB	Extensively Drug Resistant Tuberculosis
Xpert	GeneXpert MTB/Rif®

1. Executive Summary

The Challenge TB (CTB) country work plan in Democratic Republic of Congo (DRC) is aligned to the National Strategic Plan (NSP) for tuberculosis (TB) control which aims to reduce TB prevalence and mortality. The priorities for the CTB 5-year support are:

a. Increased TB Case Finding;
b. Expanded Programmatic Management of Drug-Resistant TB;
c. Integrated TB-HIV Care;
d. Increased capacity of the National Tuberculosis Program (NTP), and health care workers at different levels of health services and community workers in TB.

The CTB country team provides technical support to the NTP, and contracts local Non-Governmental Organizations (NGOs) to contribute to the attainment of the above-mentioned priorities.

Seven provinces (Kasai Central, Kasai Oriental, Kasai, Maniema, Mongala, Sankuru and Sud Kivu) representing 30% of the country's population and the same proportion of national TB activities were supported by the CTB project.
The activities were planned to complement the activities carried out with Global Fund and other USAID partner organizations' support, such as Integrated Health Project plus (IHP+).

The main achievements

1. Increased TB detection through active TB case finding by four local partner NGOs from 1,250 (Year 1) to 3,853 TB cases (Year 2).

   The four local NGOs improved TB case finding by the following activities: awareness raising, contact investigation and sputum transportation. A total of 219,765 persons were screened for TB; among them, 11% (24,457/219,765) presumed TB cases were identified and 97% (23,687/24,457) were tested for TB. Of these, **16 % (3,853/23,687) persons were diagnosed with TB (Table 1)**. whom 14% (3,236/23,687) bacteriologically confirm, 1% (334/23,687) clinically confirm, and 1% (283/23,687) EPTB for Year 2, 95% (3,852/4,050) of the NGO-specific target for case notification was achieved.

Table 1: **Numbers of presumptive and notified TB cases (all forms) using NGOs approach**

NGO	Presumptive TB patients tested		Notified TB all forms			
	Year 1	Year 2	Year 1		Year 2	
	Number	Number	Number	%	Number	%
FFP	68	2,002	24	35	481	24
ALTB	3,247	8,901	374	12	1,108	12
CAD	1,756	3,242	540	31	891	27
LNAC	1,131	9,941	312	28	1,373	14
TOTAL	6,202	23,687	1,250	20	3,853	16

2. Improvement of TB prevention and care services in prisons.

   During Year 2 several activities were carried out to improve TB prevention, diagnosis and care services in prisons: sensitization of prisons staff, training for TB of prison medical personnel to ensure the screening of each new and symptomatic prisoner, active case finding in several

biggest prisons (Bukavu, Kananga Mbuji Mayi, Muene Ditu, Lisala, et Tshikapa), ensure direct observed therapy (DOT), detect drug side effects and increase infection control by isolation of infectious cases. Nutritional support was also provided by other partners. The number of notified TB cases in prisons increased from **139 in Year 1 to 216 in Year 2 (Table2).**

Table 2: **Number TB cases diagnosed among prisoners in the 7 CTB-supported CPLTs, Year 1 and Year 2**

Year	Prison population	Number of prisoners screened	Drug sensitive TB cases	MDR-TB cases	Total TB cases detected
Year 1[1]	4,181	900 (22%)	125(14%)	14 (2%)	139(16%)
Year 2	6,181	5,375(87%)	201(3, 7%)	15(0, 3%)	216(4%)

3. Increased Rifampicin Resistance TB (RR-TB) detection from 99 (Year 1) to 123 cases (Year 2) through CTB-supported sputum sample transportation for Xpert testing and the number of patients treated with second line drugs increased from 91 to 119.

In the 7 CTB-supported Coordinations Provinciales de Lutte contre la Lèpre et la Tuberculose (CPLTs), a total of 3,153 sputum samples: were transported form health facilities:

- 2,585 samples for MTB and RR diagnosis to GenXpert machines
- 168 samples for drug sensitivity test (DST) to the NRL
- and 400 samples for culture to the NRL for patient's treatment monitoring

Among the 2,585 samples transported to GX machines, 96% (2,576/2,585) were tested with Xpert; 28% (728/2,576) were bacteriologically confirmed TB, of which **17% (123/728) RR-TB.**
Among them 97% (119/123 RR_TB) initiated second line treatment (59 RR-TB are on shorter regimens)
Two approaches on sample transportation system were and will continue to be used during the next year: the collection of sputum samples by the CPLTs staff during the supervision or payment of direct transport fees to the HCWs for the transport from CSDTs to the nearest Xpert site.

Table 3: **Number of RR-TB detected among samples transported to be tested by Xpert in the 7 CTB-supported CPLTs, Year 1 and Year 2**

Year	Number presumed MDR-TB	Number (%) with samples transported	Number (%) with test result	Number (%) with *M. tb*	Number (%) RR	Number (%) on treatment
Year 1	1,446	1,446 (100)	1,119 (77)	993 (88)	99 (8)	91 (92)
Year 2	3,008	2,585 (86)	2,576 (99)	728 (28)	123 (17)	119 (96)

4. Developed the National Laboratory Strategic Plan (NLSP) for 2016-2020

With the financial support of CTB, the first ever NLSP for 2016-2020 was developed in Year 2. The annual operational plan will assist the NTP to mobilize additional resources to **strengthen the TB laboratory network and to meet the 11 Global Laboratory Initiative (GLI) standards.**

[1] During this year outbreak of TB and MDR-TB in the Mbuji Mayi prison

2. Introduction

The Challenge TB (CTB) is a worldwide 5-year program funded by the United States Agency for International Development (USAID) to reduce mortality and morbidity from tuberculosis (TB) in selected TB high burden countries. The CTB program objectives are:

1. Improved Access to high-quality patient-centered TB, TB-HIV and MDR-TB services;
2. Prevention of transmission and disease progression; and
3. Strengthened TB Platforms.

The CTB in DRC is coordinated by the International Union against Tuberculosis and Lung Disease (The Union). The approval of Year 2 provides technical, logistic and financial support to the NTP for priority activities that complemented Global Fund (GF) and other USAID supported activities at the national and provincial levels. Seven CPLTs were funded by the CTB project in Year 2.

There were also four sub-contractors, four local NGOs, Club des Amis de Damien (CAD), Ligue Nationale Anti Tuberculeuse et Anti Lépreuse au Congo (LNAC), Fondation Femmes Plus (FFP), and les Ambassadeurs de lutte contre la Tuberculose du Sud Kivu(ALTB) which all worked with communities in TB prevention and care with the capacity building support provided by Initiative Inc.

The map below shows the geographical areas colored in green that received CTB support. The text box summarizes populations, and key interventions in TB prevention and care.

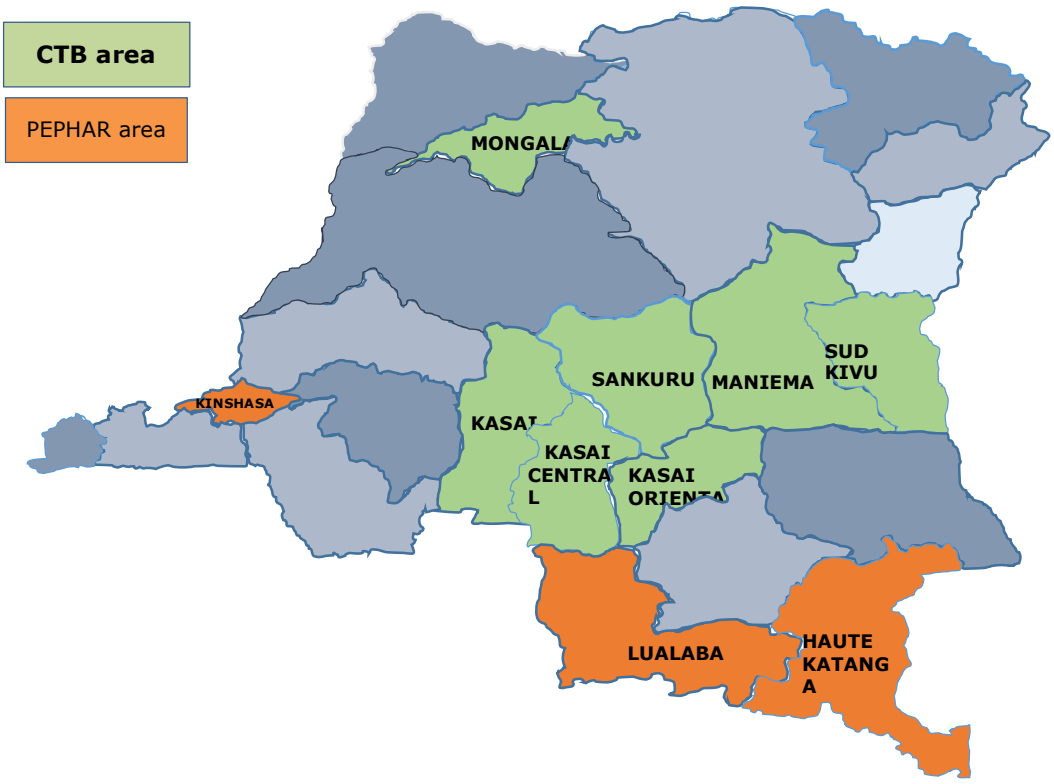

Figure 1. Map of Democratic Republic of Congo Year 2

Provinces

Kasaï Central (Kasai Occidental Est): 4,127,638, active case finding by Foundation "femmes plus", TB in children, sputum transportation, MDR-TB, engagement of private structures

Kasai (Kasai Occidental Ouest): 1,824,648, active case finding by Club des Amis Damien (CAD), sputum transportation, MDR-TB, engagement of private structures

Kasaï Oriental (Kasai Oriental Sud): 8,020,330, active case finding by Ligue Nationale Antituberculeuse et Antilépreuse du Congo (LNAC), TB in children, sputum transportation, MDR-TB, engagement of private structures, TB in prison

Maniema: 2,391,905, active case finding by Foundation "femmes plus, TB in children, sputum transportation, MDR-TB, engagement of private structures,

Mongala (Equateur Est): 2,247,234, active case finding by CAD, sputum transportation, MDR-TB, engagement of private structures, TB in prisons

Sankuru: 2,338,894, active case finding by LNAC, sputum transportation, MDR-TB, engagement of private structures

Sud Kivu : 4,741,358, active case finding by "les Ambassadeurs de la lutte contre la tuberculose", sputum transportation, MDR-TB, engagement of private structures,

The CTB work plan for Year 2 was carefully aligned to the National TB Strategic Plan (NSP) which aims to detect 149, 448 TB cases, 20, 325TB-HIV patients, and 1,937 MDRTB patients by year 2016.

3. Country Achievements by Objective/Sub-Objective

Objective 1. Improved Access to high-quality patient-centered TB, TB-HIV and MDR-TB services

Sub-objective 2. Comprehensive, high quality diagnostics

During this year, the NLSP for 2016-2020 and the annual operational were developed. The first assessment of the microscopy network using GLIA standard has been done. The function of laboratories equipment including Xpert machines improved by equipment maintenance and solar kits provided. The transport system of samples continues to be assured from the periphery to CSDTs by the 4 NGOs partners during active case finding interventions and by HCWs, from the CSDTs to Xpert machines and to NRL for culture and sensibility test for drug resistance diagnostic and patient monitoring. The outcome indicators for this sub-objective are described in the table 4 below:

Table 4: Outcome Indicator for Sub-Objective 2

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y2	**Y2**
2.1.2	A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.	Indicator Value: Score based on the following: 0= Operational plan not available 1= Operational plan available 2= Operational plan available and follows standard technical and management principles of a quality work plan required for implementing the necessary interventions to build and strengthen the existing TB laboratory network (reference: "Practical Handbook for National TB Laboratory Strategic Plan Development"; http://www.stoptb.org/wg/gli/assets/documents/Lab_Strategic_Handbook.pdf) 3= Operational plan available and meets annual implementation targets	0	2	2 .
2.2.6	Number and percent of TB reference laboratories (national and intermediate) within the country implementing a TB-specific quality improvement program i.e. Laboratory Quality Management System (LQMS).	Description: This indicator measures the percentage of TB reference laboratories in the country that are implementing a quality management system for continuous improvement of all aspects of laboratory operations to assure accuracy and reliability of testing, disaggregated by national and intermediate levels. Provide a score/rating for every reference laboratory implementing LQMS, either the "GLI Stepwise Process towards TB Laboratory Accreditation"	NA (Score not available)	1/3 = 33%	1/3 SLMTA score1

		(scoring = phase 1-4) or SLIPTA/SLMTA for TB (scoring=stars 1-5). Indicator value: Number and percent (Reference: Laboratory Quality Management Systems Handbook; http://www.who.int/ihr/publications/ lqms/en/) Numerator: Number of TB reference laboratories implementing a quality improvement program Denominator: Total number of TB reference laboratories in the country Level: National and/or Intermediate			
2.2.7	Number of GLI-approved TB microscopy network standards met	Description: This indicator measures whether or not a country has met the 11 GLI-approved standards for the TB microscopy network. A CTB checklist is provided to assess fulfilment of the requirements for each standard. Identify numerically (1-11) which standard(s) have been met. (Reference: "TB Microscopy Network Accreditation: an assessment tool"; http://www.who.int/tb/laboratory/ microscopy-network-accreditation-assessment-tool.pdf) Indicator value: Number Numerator: Total number of standards met (NE=not evaluated, 0=no standards have been met).	SNA (Score Not Available)	SA	5/11 1,3,6,8,11

2.3.1	Percent of bacteriologically confirmed TB cases who are tested for drug resistance with a recorded result.	Description: This indicator measures the percentage of bacteriologically confirmed TB cases that are tested for drug resistance and also have results recorded in the TB register (disaggregated by new and previously treated cases). Drug resistance testing includes phenotypic (culture DST) and genotypic (molecular DST by GeneXpert, LPA or other molecular technologies). Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of bacteriologically confirmed TB cases that are tested for drug resistance and have results recorded in the TB register. Denominator: Total number of bacteriologically confirmed TB cases notified during the reporting period	0,50% (2014)	1%	**National level:** January – December 2015 New cases 0,1% (104/76,620) Retreatment 8% 351/4,341 **7 CPLTs (CTB-supported):** New cases 0,16% (37/23,007) Retreatment 6% 86/1,541
2.4.2	#/% of Xpert machines that are functional in country (stratified by Challenge TB, other)	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of Xpert machines that are functional Denominator: Total number of Xpert machines.	Among 41 Xpert machines distributed only 30 are functional at National level and of them 3 (10%) are in CTB-supported CPLTs	National 35 and among them 3 CTB (9%)	**National level:** 75% 33/44 52 Xpert machines received and to be distributed, including 11 machines for CTB geographic areas. **CTB level:** 100% 17/17 11 GeneXperts funded by Global Fund, transported to 7 CPLTs with CTB support and 1 to the new CPLT (Lomami) and installation is in progress 1 – Mongala, 2 X-ray

					1 – Kasai Oriental, 1 X-ray 2 – Kasai Central, 6 X-ray 2 – Kasai 1 X-ray 2 – Lomami, 2 X-ray 2 – Maniema, 3 X-ray 1 – Sankuru, 2 X-ray
2.4.6	#/% of new TB cases diagnosed using GeneXpert	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of new TB cases diagnosed using GeneXpert Denominator: Total number of new TB cases	NA	TBD	**National level in 2015** 0,14% (104/76,620) of new cases **CTB level in 2015** 0,10% (22/23,007) of new cases
2.6.4	# of specimens transported for TB diagnostic services	Indicator Value: Number Level: National and Challenge TB geographic areas Numerator: Number of specimens transported for TB diagnostic services via a specimen transport system GeneXpert	in 2014 5,368 at national level and 2,148 in The 7 CPLTs supported by CTB	3600 (in CTB provinces)	**National level:** NA Due to changing of the data tools (from national guide PATI4 to PATI5) this information was not yet available at the national level. It is expected during the Q1 in Jan-March 2017 **CTB-supported CPLTs** **2,585** for GeneXpert examination and 168 for culture
2.6.5	#/% of TB cases detected through a specimen transport system	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of TB cases detected through a specimen transport system Denominator: Total number of lab confirmed TB cases	405 (8%) at National level In the 7 CPLT 126 RR (6%) in 2014	15%	**National level:** Due to changing of the data tools (from national guide PATI4 to PATI5) this information was not yet available at national level. To be expected in Jan-March 2017 **CTB-supported CPLTs:** TB detected through transport system: Number transported A total of 2,753 samples were transported for drug resistance diagnosis: 2,585 to GXpert machines and). Among them 728

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<td></td>
<td></td>
<td></td>
<td>were identified as MTb

During ACF intervention done by NGOs, 1,030 samples were transported and among them 193 are diagnosed (this number is an estimation based on proportion of TB identified by NGOs)

921 /26,631 (nb de PTB bacteriologically confirm)
<table>
<tr><th></th><th>Samples transported</th><th>PTB bacteriological confirmed</th></tr>
<tr><td>NGOs (ACF)</td><td>1,030</td><td>193</td></tr>
<tr><td>For Drug resitance diagnosis</td><td>2,585</td><td>728</td></tr>
<tr><td>Total</td><td>3,615</td><td>921</td></tr>
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TB detected through transport system 3% (921/26,631)</td>
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Key results are the following

- The NLSP for 2016-2020 was developed and his in annual operational plan that will assist the NTP to mobilize additional resources to strengthen the TB laboratory network. This plan permits to reach one more GLIA standard (5 GLIA standards met out of 11).
- The service providers for maintenance lab equipment permit the functional equipment at the central and intermediary level.
- 100% of the 17 Xpert machines located in the 7 CPLTs are functioning and 11 other machines funded by Global fund will be placed in these CPLTs
- 3 solar kits were installed by the "Solar regular Energy" engineer in three provinces: Sankuru (Lodja, May 21 to 28, 2016); Mongala (Lisala, May 26 to June 2, 2016); Kasai (Tshikapa, June 2 to 6, 2016); and an Industrial Solar kit was installed at the NRL to resolve the issue of lack electricity for the constant running of machine functioning.
- 552 laboratory technicians (504 males, 48 females) were trained in sputum examination and External Quality Assurance (EQA) From October 1, 2015 to September 30, 2016, a total 3,153 samples were transported to Gx machines or to NLR for cultures/ sensibility test for diagnosis or treatment follow-up as shown in the table 6 below. (These samples were transported from CDSTs to GenXpert machines directly or by the intermediary of Health Zone. For culture or sensibility test, each CPLT will be sent samples to LNR.)

Table 5: Samples transported for TB diagnosis or treatment patient monitoring in 7 CPLTs (Oct 2015 to Sept 2016)

Year 2	Number of samples transported for diagnosis Xpert and C/DST	Number of samples transported for treatment monitoring	Total
Q1	679	12	691
Q 2	365	76	441
Q 3	1,001	100	1,101
Q 4	708	212	920
Total	2,753	400	3,153

As shown in the figure below, the number of sputum samples transported for diagnosis by GeneXpert increased in Year 2, and other samples transported for diagnosis by culture/DST and patient treatment monitoring by culture remained on the same level as in Year 1.

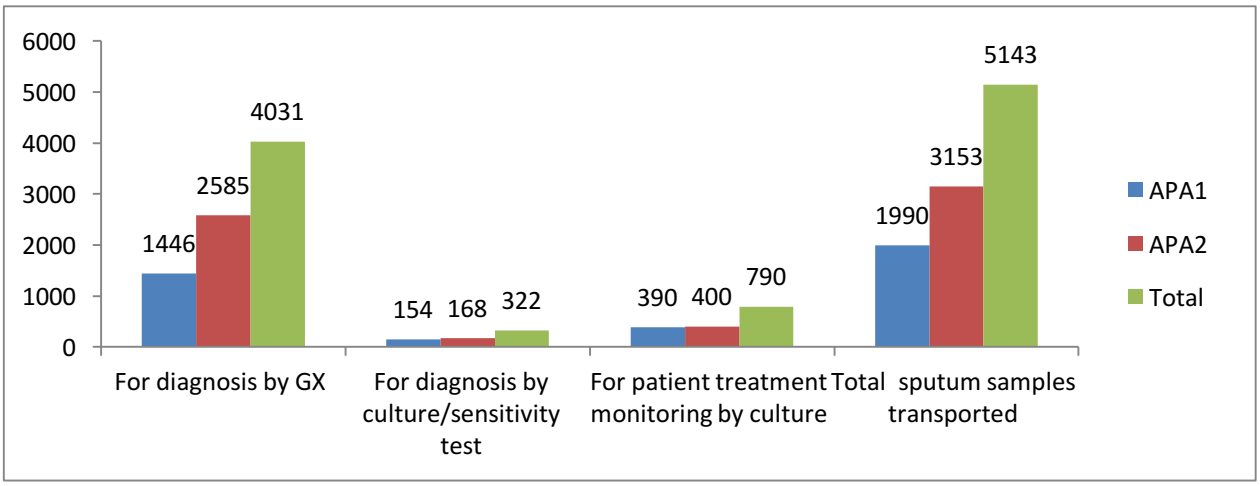

Figure 2: *Sputum transported in year 1 and year 2 for diagnosis/screening and for tuberculosis patient treatment monitoring by CSDT/HZ*

Challenges

- The annual Operational Plan of the NLSP is not yet implemented due to insufficient of funds to cover the major activities in particularly culture laboratory in the hot MDR-TB in Mbuyi Mayi, set up of laboratory information management system
- Transport of sputum samples of all suspected MDR-TB cases not yet performed due to the difficulty of the accessibility of some health facilities (absence of public transportation, high cost to rent cars or motorcycles)
- The long turnaround time of culture results (high workload at the culture labs, insufficient communication budget)
- Underutilized lab equipment. For the well-functioning lab equipment, the maintenance service was continued including maintenance of the solar kits
- All presumed TB patient not allow to be test by Xpert machine expect high risk group when Xpert available. In year 3 we will start in the Kasai Oriental province in the Mbuji Mayi city

Sub-objective 3. Patient-centered care and treatment

Patient-centered care and treatment activities improved between Year1 and Year2. The number of patients detected including through active case finding conducted by NGOs in keys and vulnerable population increased. The number of patients with drug resistance identified increased and the short course regimen for MDR-TB has been introduced in the CPLT supported by CTB. The private structures are integrated in TB prevention and care. An STTA on risk prioritization using WHO tool has been conducted and the following key high risk population identified are the following: HIV, prisoners, household TB contact, malnourished children under 5 years old and miners' community. An international course on MDR-TB conducted in June 2016, reinforced the expansion of short course regimen for drug resistance TB and training course material for further national training course on Drug resistance TB has been elaborated.

The outcome indicators for this sub-objective are described in the table 6 below

Table 6: Outcome indicators for sub-objective 3

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y2	Y
3.1.1	Number and percent of cases notified by setting (i.e. private sector, pharmacies, prisons, etc.) and/or population (i.e. gender, children, miners, urban slums, etc.) and/or case finding approach	Indicator Value: Number and where available, percent Level: National and Challenge TB geographic areas Numerator: Number of TB cases all forms (bacteriologically confirmed + clinically diagnosed; includes new and relapse cases) reported (by setting/ population/ case finding approach) nationally and in Challenge TB geographic areas in the past year Denominator: Total number of TB cases (all forms) notified nationally and in Challenge TB geographic areas	National TB (all forms): 116,894 (2014) Private sector: 9,110 (8%) Children: 12,785 (11%) 7CTB CPLTs: 34,540 Private sector: N/A Children: 4,239 (12%) CTB ACF initiative: N/A	4,940 (13%) children Private sector: TBD ACF: TBD	**National level:** Data for private and community is not available at national level Children (0-14) in 2015 9% (10,643/120,434) In the same period 12% (4,257/35,578) Children (0-14) all cases in the CTB supported CPLTs was identified: **CTB-supported CPLTs:** ▪ **Community** (Year 2 Q1-Q4) (13%) 3,853/28,818 • **Children**: Data not yet available for year 2 The following data are available for health facilities trained: In Kasai Oriental 391 TB in children were diagnosed during Q1-Q4 in health facilities where providers have been trained, compared with 264 children diagnosed the quarters before the training (Figure 5). In Maniema 100 children were diagnosed during Q3 et Q4: the trend of TB notification in these facilities will be follow

					Private 1,529 TB cases detected by private health facilities (5%) 69 private structures identified and staff trained. Among them, 31 become CSDT and 38 TB treatment center National data for Q4 all cases is not yet available, so % will be calculated after Q4 data are released **Prison** 216 TB cases detected National data for Q4 all cases is not yet available, so % will be calculated after Q4 data are released
3.1.4	Number of MDR-TB cases detected	Indicator Value: Number Level: National and Challenge TB geographic areas Numerator: Number of bacteriologically confirmed MDR-TB cases diagnosed during the reporting period	405 RR of which 126 (31%) in the 7 CPLTs	100 in the 7 CPLTs out of 450 at National level	**<u>National level:</u>** - 501 MDR-TB notified in 2015 - Jan –September 2016: 403 MDR-TB notified **<u>CTB- supported CPLTs</u>** - 99 MDR-TB notified in 2015 (20% 99/501) - Jan-Sept 2016 103 MDR-TB notified in the 7 CPLTs (26% 103/403) In year 2, Oct 2015 to Sept 2016 data available only in the CTB-supported CPLTs 123 DR-TB notified
3.2.1	Number and percent of TB cases successfully treated (all forms) by setting (i.e. private sector, pharmacies, prisons, etc.) and/or by population (i.e. gender,	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of new and relapse TB cases (all forms) registered in a specified period that were cured or	98,633/110,943 89% and 30,702/33,837 91% in the 7 CPLTs	90%	**<u>National level:</u>** For cohort 2014 PTB+ new cases bacteriologically confirmed 89% (66,640/75,055) TB all forms 86% (100,866/117,214) **<u>CTB- supported CPLTs:</u>**

	children, miners, urban slums, etc.).	completed treatment Denominator: Total number of new and relapse TB cases (all forms) registered in the same period			For cohort 2014 PTB+ new cases bacteriologically confirmed 90% (19,840/22,089) All forms TB cases 86% (29,634/34,540)
3.2.4	Number of MDR-TB cases initiating second-line treatment	Indicator Value: Number Level: National and Challenge TB geographic areas Numerator: The number of confirmed or unconfirmed MDR-TB patients started on second-line treatment in the reporting period	436 in 2014 and 126 in the 7 CPLTs	100 in the 7CPLTs out of 450 at national level	**National level in 2016:** In 2015, 91%(455/501) start treatment Data available only from Jan to Sept 2016 329 (82%; 329/403) started on 2nd line treatment. 69 were waiting to start treatment at the time of writing this report **CTB- supported CPLTs:** In 2015, 100% was start treatment From October 1, 2015 to September30, 2016 in 7 CPLTs, 119 (97%) out of 123 patients were started on treatment. Three patients started treatment at the beginning of October 2016 and one patient (Sud Kivu) was lost-to-follow-up.
3.2.7	Number and percent of MDR-TB cases successfully treated	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of confirmed MDR-TB cases successfully treated (cured plus completed treatment) Denominator: Total number of confirmed MDR-TB patients enrolled on second line TB treatment during the reporting period.	162 (60%) of those who have been treated with the 20-month regimen and 57 (83%) of those who have been treated with the nine-month regimen; 17 successfully treated of 29 started on the 20-month regimen (58%) in the 7CPLTs	43 (70%) in the 7 CPLTs	**National level:** For cohort 2013 (20-month regimen): 63% (210/365) For cohort 2014 (nine-month regimen) 79% (58/73) with 8 deceased, 1 failure and 6 lost-to-follow up **CTB- supported CPLTs:** For cohort 2013 (20-month regimen) 49% (26/53) (Data for 3 CPLT: Kasai Oriental, Kasai Central and Sud Kivu) No MDR-TB patients recruited in the 4 others

					CPLTs In 7 CPLTs short regiment started in April 2016 Before 2016 NTP applied 20 month MDR-TB treatment regimen that is associated with a high number of patients who are lost to follow up. Nutritional support, biological test, and management of adverse drug effects were provided by CTB support

Several CTB activities focused on increasing TB detection, prevention and care particularly by active detection done by NGOs and among vulnerable populations.

Key results:

a. The number of TB cases notified through active detection conducted by NGOs increased

As shown in figure 3, the number of TB cases detected from 1,250 (Year 1) to 3,853 TB cases (Year 2)

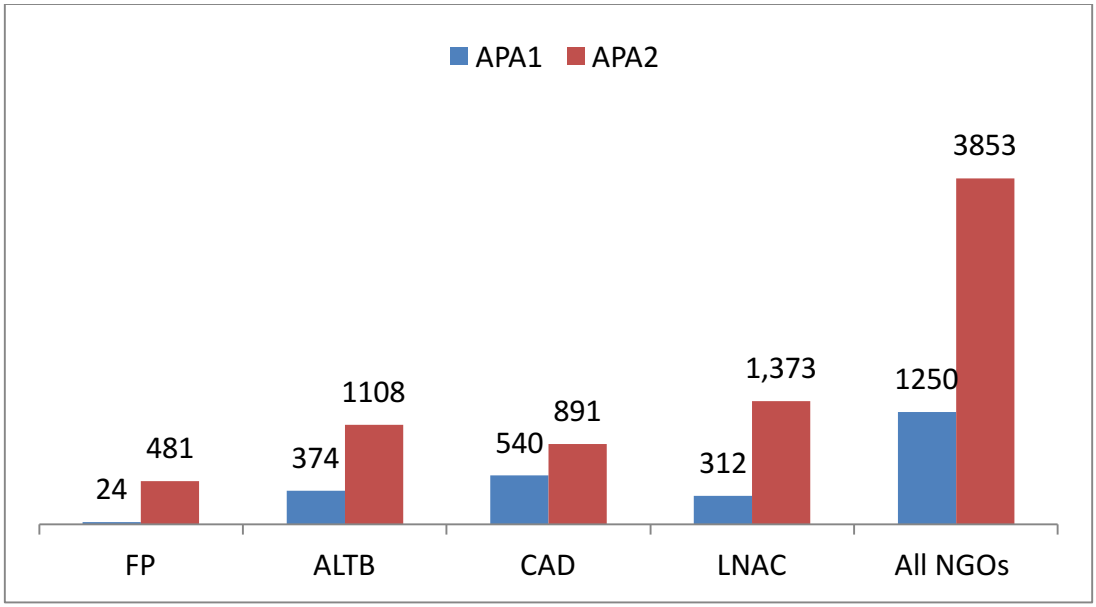

Figure 3: *TB all forms detected through Active TB detection done by the 4 NGOs, comparison Year1 and Year 2*

The complete cascade of Active TB case detection described in the table below

Table 7: Cascade of the active TB case finding by the local partner NGOs in Year 2, in the 7 CTB-supported CPLTs

	Persons Sensitized and screened	Presumptive TB referred to CDSTs			Presumptive TB patients tested (#)	Confirmed Smear+ PTB		Smear negative PTB identified		Extra-pulmonary tuberculosis		TB all forms identified	
		Physically referred	Sputum transported	Total referred		#	%	#	%	#	%	#	%
Femmes Plus	8,944	1,948	111	2,059	2,002	288	*14*	108	*5*	85	*4*	481	*24*
ALTB	91,094	9,046	267	9,313	8,901	1,101	*12*	7	*0*	0	*0*	1,108	*12*
CAD	7,460	2,896	419	3,315	3,243	753	*23*	104	*3*	34	*1*	891	*27*
LNAC	112,267	9,537	233	9,770	9,541	1094	*11*	115	*1*	164	*2*	1,373	*14*
Total	**219,765**	**23,427**	**1,030**	24,457	**23,687**	**3,236**	*14*	**334**	*1*	**283**	*1*	3,853	*16*

23,687 presumptive TB patients have been tested during Year 2 and 3,853 cases of TB all forms detected. For Year 2, 95% (3,852/4,050) of the NGO-specific target for case notification was achieved.

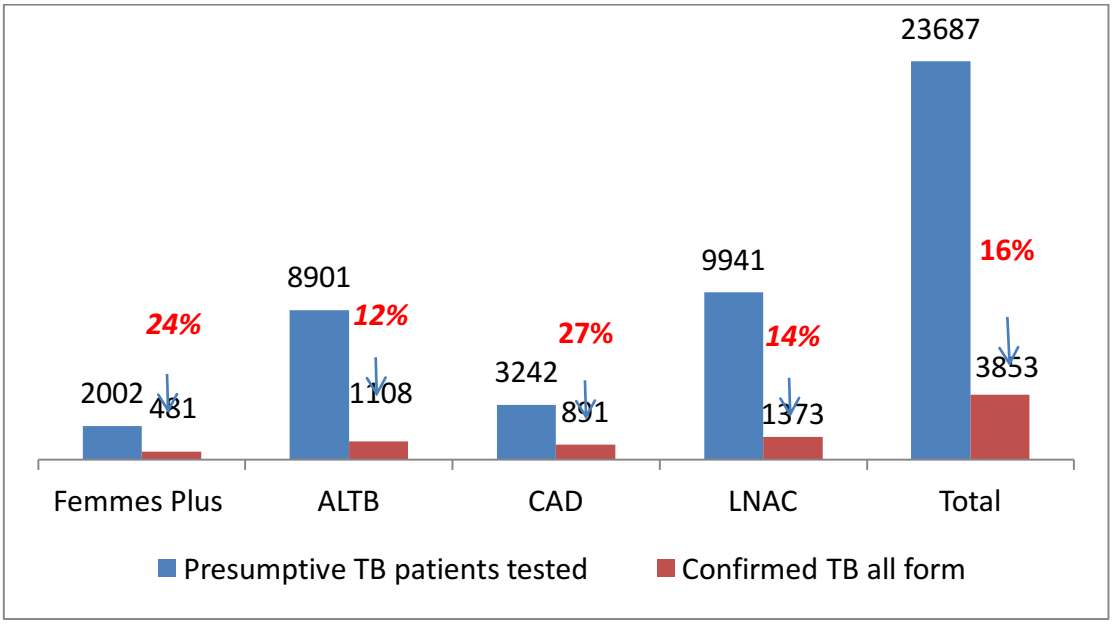

Figure 4: *Number of samples tested through active tuberculosis case finding and TB (all forms) cases identified by the local partner NGOs in Year 2 in the 7 CTB-supported CPLTs*

The difference of proportion of TB detected by each NGO through active case finding is probably linked to the different methodology used and the key population focused as described in the table below. All TB cases detected through NGOs approach have been started on treatment.

Table 8: Approaches to identification of presumptive TB patients by the local NGOs

NGO	Approach to identification of presumptive TB patients
FFP	Sensitization in health facilities among persons living with HIV, in the FFP consultation offices (for symptomatic patients living with HIV) and in the general population
ALTB	Interviews of close and household contacts living near an index case through a door-to-door approach among hard-to-reach populations
CAD	Sensitization of patients in health facilities and CDSTs
LNAC	Sensitization of key vulnerable populations in specific settings, such as schools, prisons, poorest areas

b. TB detection in children increased in some facilities after HCWs training

The number and % of TB in children among all age is stable in the CTB-CPLTs: 12%, (4,239/34,525) in 2014 and 12% (4,257/35,778) in 2015. This proportion is variable among CPLTs, from 7% in Mongala to 14% in Kasaï Oriental and Sud Kivu. (Table 10)

Table 9 : TB notification among children 0-14 years in 7 CPLTs in 2015

	PTB smear+			PTB smear negative			EPTB			Total notified		% Children among TB all age
CPLTS	0-4 years	5-14 years	Total	0-4 years	5-14 years	Total	0-4 years	5-14 years	Total	Children	All TB (Cat4 excluded)	
Mongala	0	58	58	1	22	23	4	22	26	107	1,431	*7*
Kasaï Central	10	181	191	9	33	42	71	143	214	447	4,943	*9*
Kasaï	1	137	138	4	24	28	50	151	201	367	4,651	*8*
Kasaï Oriental	34	298	332	112	167	279	472	821	1293	1904	13,360	*14*
Sankuru	0	58	58	9	25	34	53	61	114	206	2,633	*8*
Maniema	12	108	120	13	26	39	93	177	270	429	3,263	*13*
Sud Kivu	9	128	137	154	114	268	170	222	392	797	5,497	*14*
Total children notified	66	968	1,034	302	411	713	913	1597	2,510	**4,257**	35,778	*12*
% children notified by category			24%			17%			59%			100%

The variability in TB detection in children was thought to be due to the level of training of medical and nursing staff and the availability of diagnostic tools, such as X-ray machines and Xpert machines.
The role of training and diagnostic tools has been observed in the focused 8 private health facilities where medical staff has been trained and supervised for pediatric TB. In these facilities the number of pediatric TB detected increased after training (Figure 5).

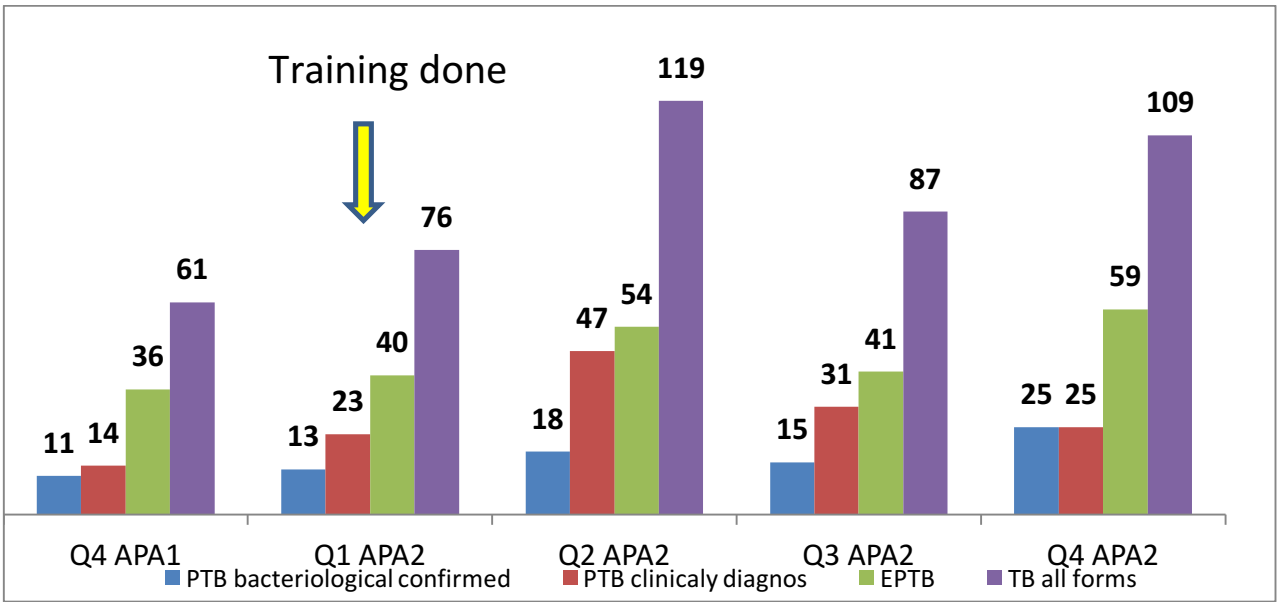

Figure 5: *Trend of detection of tuberculosis in children before and after training in pediatric TB done in the first quarter of Year 2 in Kasaï Oriental*

c. TB detection increased in prisons

Another vulnerable population is prisoners. Several activities have been supported by CTB and conducted to increase TB care and prevention in prisons. During Year 1, 139 TB cases were detected in prisons. During Year 2, active TB case finding has been done in several big prisons that included Bukavu, Kananga Mbuji Mayi, Muene ditu, Lisala, et Tshikapa. A total of 5,375 prisoners were screened, 216 TB cases were detected and among them 15 are MDR-TB cases (Table11). These MDR-TB cases were identified in Mbuji Mayi prison where the living conditions are particularly difficult with a high risk of transmission (congestion, poor ventilation, and malnutrition).

Table 10: Tuberculosis case finding in big prisons in 7 CPLT from October1, 2015 to September 30, 2016

Prison	Number of prisoners screened	Drug-sensitive TB cases (%)	MDR-TB cases (%)	Total TB cases (%)
Mbuji Mayi	1,777	140 (8)	15 (1)	155 (9)
Muene Ditu	124	0	0	0
Ngandajika	37	1 (3)	0	1 (3)
Luputa	42	0	0	0
Kabinda	ND	0	0	0
Lisala	780	16 (2)	0	16 (2)

Kananaga	600	9 (2)	0	9 (2)
Tshikapa	100	18 (18)	0	18 (18)
Sud kivu	1881	17 (1)	0	17 (1)
Total	5341	201 (4)	15 (0)	216 (4)

TB detection in prisons improved and the number of TB detected increased from 139 cases during APA1 to 216 cases in APA2 (Figure 6). The patient detected were put on treatment… sometime during the follow up the prisoner refuse to take their drug if the nutritional support not provided. One released the follow up become a big issue due to the lack of correct physical address

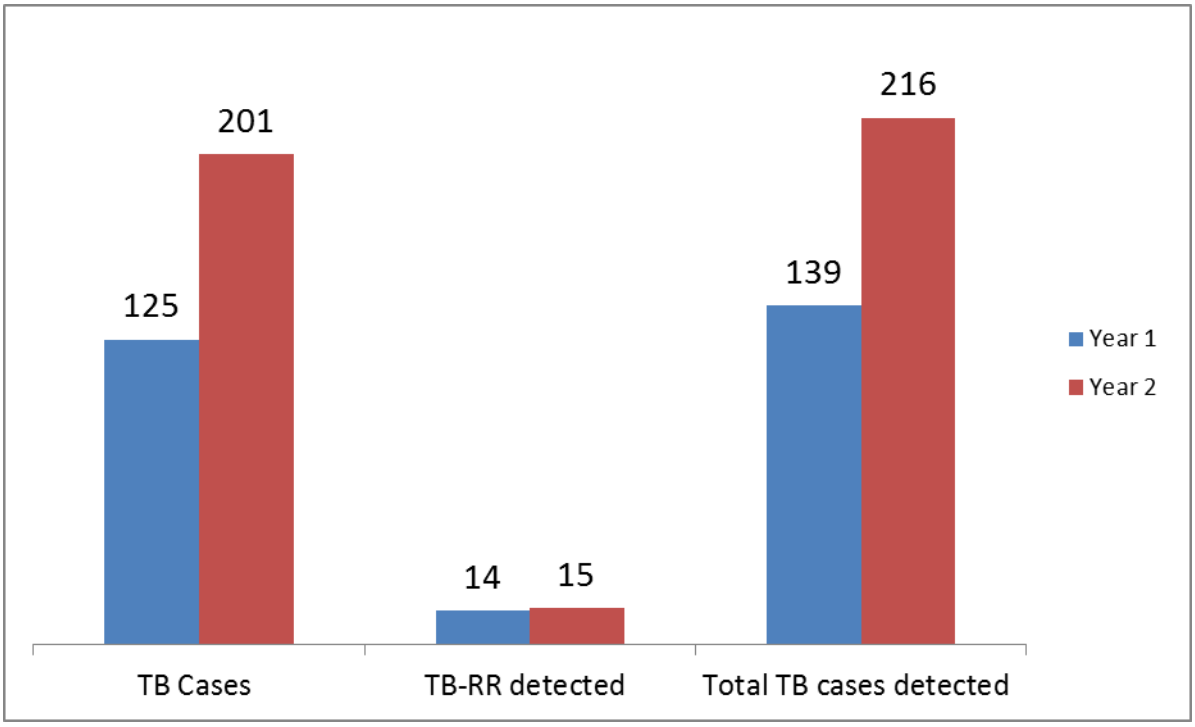

Figure 6: ***Detection of TB in prisons in the CTB-CPLTs, Year 1 and Year 2***

d. Access to quality treatment and care has been ensured for patients with TB and MDR-TB during Year 2

- High success rate for patients treated with first line drugs

The treatment success rate for cohort 2014 for all forms TB cases is 86% at both national level (100,866/117, 214) and in the 7 CTB CPLTs (29,634/34,540). For PTB+ new cases, the success rate is at national level 89% (66,640/75,055) and 90% at 7 CPLTs (19,840/22,089) Treatment success rate for PTB bacteriologically confirmed is different from one CPLT to another (Figure 7). Between year 1 and year 2, the success rate has improved in Equator Est, Kasai Occidental Ouest and Sankuru, remained stable in Sud Kivu and decreased in Kasai Occidental Est, Kasai Oriental Sud and Maniema

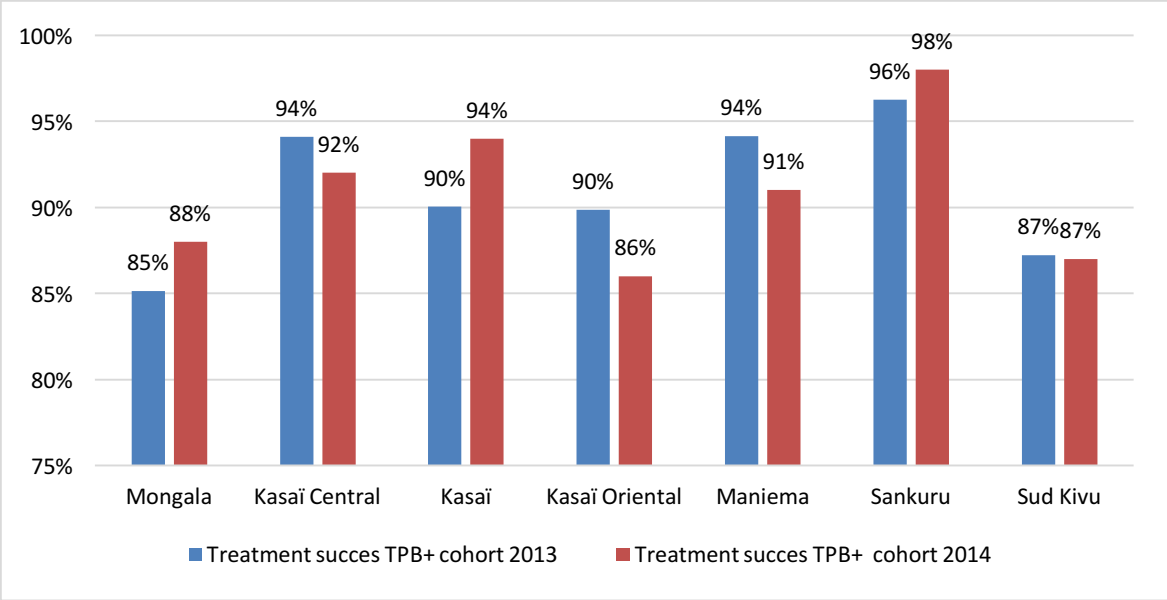

Figure 7: *Treatment success rate among PTB bacteriologically confirmed new cases in the 7 CPLTs of the 2013 and 2014 cohorts*

The declining treatment success rates in Kasai Oriental and Maniema could be explained by frequent job rotation health care workers (HCW), new HCW not yet trained in TB care and prevention, poor lab results and deficiency of formative supervision.

- Number of drug resistance TB identified and treated increased

The number of drug resistant TB (DR-TB) cases detected in CTB CPLTs increased from 99 during Year 1 to 123 in Year 2. To ensure the detection of RR-TB during Year 2, 3,008 samples were transported from CDSTs of the 7 CPLTs for Xpert testing. The results of 99% of these samples were received. Seven hundred and twenty-eight (28%) samples were positive for *M. tb* of which 123 (17%) were RR-positive (table 12). Of these, 97% were started on a 2nd line treatment regimen (60 RR-TB on 24-month and 59 RR-TB on nine-month regimen)

Table 11: Number of RR-TB cases detected among samples transported to be tested by Xpert in the 7 CTB supported CPLTs from 1 October 2015 to 30 September 2016

Quarter	# presumed MDR-TB	# (%) with samples transported	# (%) with test result	# (%) with M.tb	# (%) RR	# (%) on Treatment
Q1	691	665 (96)	665 (100)	175 (26)	20 (11)	20 (100)
Q2	441	267 (60)	258 (97)	122 (47)	29 (24)	29 (100)
Q3	1,155	975 (84)	975 (100)	206 (21)	33 (16)	33 (100)
Q4	721	678 (94)	678 (100)	225 (33)	41 (18)	37 (90)
Total	3,008	2,585 (86)	2,576 (99)	728 (28)	123 (17)	119 (97)

The number of presumed MDR-TB cases was higher in Q3 (1,155) that can be explained by the instruction (mandatory notification among the retreatment cases) done by NTP during the data

validation meeting that was held in Goma in April 2016. Unfortunately, this increase was not sustained in Q4.

CTB project continues to support health facilities to improve treatment success among MDR-TB patients for biological investigations and nutritional support. In Year 2, 86 MDR-TB patients benefited from nutritional support according the national policies as shown in the Figure 8 below.

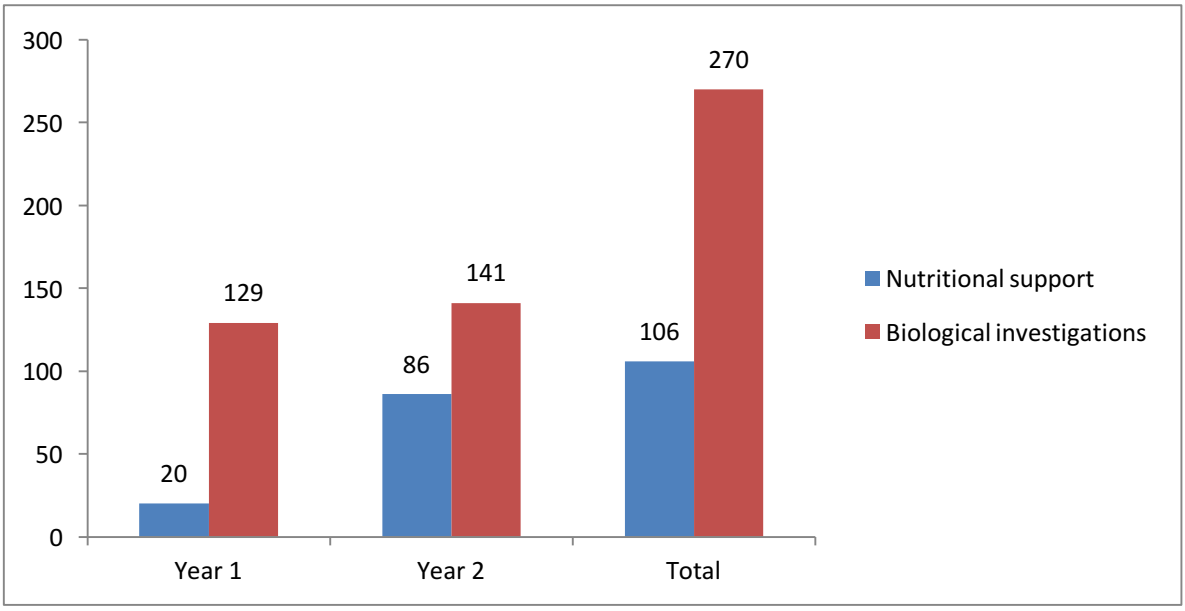

Figure 8: *Support to the patients treated for MDR-TB, Year 1 and Year 2*

- Patient accessibility to prevention and care for TB improved during year 2 during Year2.

To increase patient's accessibility for TB prevention and care, 69 private structures has been identified and staff trained since APA1. Among them, 31 private health facilities become CSDTs and 38 as TB treatment center

Challenges

- High proportion of job turnover among HCWs in the CPLTs caused by the reforms of the health system at intermediate level and CDSTs level. HCWS skills will be reinforced during supportive supervisions in year 3.
- Delay in initiation of treatment for MDR-TB patients linked to delay in drugs delivery to CSDT. Efforts will be made to provide a sufficient stock of drugs in CSDTs to avoid this delay by providing a sufficient stock of drug in the CSDTs
- Lack of Xray to improve diagnosis of pediatric TB and of ECG and audiometers for initiation and follow up of MDR TB patients in all CTB-supported CPLTs. This equipment would be provided by CTB in Year 3.
- Due to the revision of collecting data tools from PATI4 to PATI5 the stock out of the new data collection tools was observed at the national
- Lack of synergy with the Global Fund and other USAID partners to achieve the desired results this synergy will by reinforce by the organization of regular coordination meetings.

Objective 2. Prevention of transmission and disease progression

Sub-objective 5. Infection control

During Year 2 in this area only activities to improve TB surveillance among HCWs has been planned and conducted through a STTA held in Kinshasa from June 12-23, 2016

Table 12: Outcome indicators for Sub-Objective 5

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y2	Y2
5.1.4	% of TB service delivery sites in a specific setting (ex, prison-based, hospital-based, private facility) that meet minimum infection control standards	Description: This indicator measures the percent of TB service delivery sites in specific settings (disaggregated by public and private health facilities) that meet minimum IC standards in line with global guidance. Note this measurement requires survey of facilities selected through lot quality assurance sampling and by using the 10-item modified CDC monitoring tool. Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of TB service delivery sites that meet minimum IC standards in the area Denominator: Total number of TB service delivery sites in the area	Not available	will be collected via sentinel sites	National level: Not available 1
5.2.3	Number and % of health care workers diagnosed with TB during reporting period	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of HCWs diagnosed with TB (all forms) during past year Denominator: Total number of HCWs in the same year In countries where the NTP does not collect this indicator or is not willing to share the data, Challenge TB should document this challenge.	0,80%	Risk assessed at sentinel survey sites	NTP does not collect this indicator

Key results

- The guideline for TB surveillance among HCWs was developed,

Challenges

- The guidelines not yet approved, need to be validated, before printing and distribution during APA3 (Q2)
- The TB survey among HCWs will be done in Q3 year3 and the information gathered trough supervision.

Sub-objective 6. Management of latent TB infection

Challenge TB did not conduct specific activities in this area, but monitored the mandatory indicator and the outcome indicators are given in the table 14 below:

Table 13: Outcome indicators for Sub-Objective 6

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y
6.1.11	Number of children under the age of 5 years who initiate IPT	Indicator Value: Number Level: National and Challenge TB geographic areas Numerator: The number of children under the age of 5 years who initiate IPT during the reporting period.	Not available	N/A	NTP started to collect this information from January 2016. Not all CPLTs collect this information. **National level:** Data available in 2016: for Q1 – Not Available Q2 – 356 Q3 – 595 Q4 – NA Total = 951 **CTB-supported CPTLs in 2016:** Q1 - NA Q2 – NA Q3 – 10 (Kasai – 4, Kasai Central – 6) Q4 - NA

Key result

- IPT among children under five began and data collected in some CPLTs

Challenges

- The new data collection tools were printed and distributed in the 7 CTB-supported CPLTs only in May-June 2016 because the delay between the order and reception of tool.
- To initiate and roll out data collection on IPT, the briefing in infection control will be provided in year3 including how to give IPT and how to collect data The regular and formative supervisions will reinforce this activity

- Some doctors were still reluctant to implement TB prevention therapy among children under the age of 5 years, PLHIV and adults in general as per national guideline. Advocacy with the health managers, training and sensitization among HCWs and patients will be continued and data tool will be check during supervision.

Objective 3. Strengthened TB Platforms

Sub-objective 7. Political commitment and leadership

Challenge TB did not conduct specific activities in this area, but monitored the mandatory indicator below:

Table 14: Outcome indicators for Sub-Objective 7

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y
7.2.3	% of activity budget covered by private sector cost share, by specific activity	Indicator Value: Percent Level: Nationally for activities at national scale and in Challenge TB geographic areas for activities focused in specific geographic areas where Challenge TB is working. Numerator: Amount of private sector cost share covering CTB project activity during most recent fiscal year Denominator: Total CTB project activity budget plus private sector cost share amount during the year of assessment.	Not available	N/A	CTB/DRC did not have private cost share in Year 2

Sub-objective 8. Comprehensive partnerships and informed community involvement

Challenge TB did not conduct specific activities in this area, but monitored the mandatory indicator below.

Table 15: Outcome indicators for Sub-Objective 8

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target **Y2**	Result **Y2**
8.1.3	Status of National Stop TB Partnership	Indicator Value: The score based on below: 0= no National Stop TB Partnership exists 1= National Stop TB Partnership established, and has adequate organizational structure; and a secretariat is in place that plays a facilitating role, and signed a common partnering agreement with all partners; but does not have detailed charter/plan, and does not meet regularly/ produce deliverables; 2= National Stop TB Partnership established, has adequate organizational structure and in a participatory way has developed detailed charter/plan, but does not meet regularly and does not produce deliverables; 3= National Stop TB Partnership established, has adequate organizational structure, has developed detailed charter/plan, meets regularly and critical deliverables are produced Level: National	0	N/A	2 National Stop TB Partnership is in place since August 30, 2016 (Secretary is functional, Strategic Plan 2016-2020 elaborated and Mapping of NGO/CBO is available since 2014 and was done by MOH)
8.1.4	% of local partners' operating budget covered by diverse non-USG funding sources	Indicator Value: Percent Level: Challenge TB geographic areas Numerator: Amount of CTB local partners' operating budgets covered by non-USG funding sources (TGF, WB, EU, ADB, DFID,	Not available	% Available	**CTB level** 50% (5563,949,14/ 1,124292,14) By local NGO in CTB area: 55% - ALTB (126,266/

		private donations, investment income, other revenue, etc.) Denominator: Total operating budget of CTB local partners' operating budget (USG + non-USG sources) during the year of assessment.			228,730) 43% - FFP (148,000 /340,000) 48% - LNAC (151,399/ 317,226) 56% - CAD (134,214/ 238,336)
8.2.1	Global Fund grant rating	Indicator value: Score is based on the following: A1 Exceeds expectations A Good performance A2 Meets expectations B1 Adequate B2 Inadequate but potential demonstrated C Unacceptable Level: National	B1	A	NA (Not Available as of Oct. 18 2016) This is the first disbursement of these grants. There are therefore no programmatic results to report. The previous grants reported expenditure and programmatic results up to 30 June 2015.

Key results

- The National Stop TB Partnership has been set up and was functional since August 30, 2016. The training and accompanied local NGOs in resources mobilization will be start during Q4
- All four local NGOs supported by CTB have operating budgets that include diverse non-USG funding sources.
- The held regularly monthly coordinating meetings that brought together the key partners involved in the GF grant implementation
- Refer to the Global Fund section (pg. 43) for further information on CTB's collaboration and support of Global Fund.

Challenges

- The lack of local resource to fight TB
- The delay of Global fund disbursement could result in a lower rating and a lower level of financing in the future

Sub-objective 9. Drug and commodity management systems

Previously challenge TB did not conduct specific activities in this area, but he supported the drug storage and distribution in the health facilities to ensure the availability of drug. The outcome indicator is in the table 16 below.

Table 16: Outcome indicators for Sub-Objective 9

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y2	Y
9.1.1	Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)	Indicator Value: Number Level: This indicator should be reported at whatever level a stock out that result in interruption of treatment occurs.	1 stock out at central level of more than 30 days	N/A	**National level:** 1 Stock out for three drugs Cycloserine, Levofloxacine and Kanamycin from January to March in 2016 due to delays of supply (Global Fund disbursement, transport and dispatching)

Key result

- The first-line TB drugs were available at all levels and throughout Year 2 in the drug stores with CTB financial support (fees for drug storage and for drug transport to health zones)

Challenges

- Delay for initiation of treatment of MDR-TB linked to the delay for drug delivery after request to national level has been identified for some MDR-TB patients. To avoid this delay, at least 2 courses of short course regimen for MDR-TB will be kept available at all times at each CPLT an adjustment of this stock will be done according to the average of RR cases identified in each CPLTs.
- Follow-up of drugs orders for first line and second line drugs will be done through PATIMED and Global Fund to avoid further storage of drugs

Sub-objective 10. Quality data, surveillance and M&E

The recording and reporting tools are paper based in each CDST. The data are aggregated and validated at provincial and t national level. These electronic data on Excel sheet by CDST and aggregated by health zone, CPLT and at national level are available since 1998 at the PN.
An STTA has been done in August 2016, for data quality assessment based on "Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration System".

The outcome indicators of activities planned and implemented are in the table 17 below

Table 17: Outcome indicators for Sub-Objective 10

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y
10.1.4	Status of electronic recording and reporting system	Indicator value: Score based on below: 0=R&R system is entirely paper-based; 1=electronic reporting to national level, but not patient/case-based or real time; 2= patient/case-based ERR system implemented in pilot or select sites (TB or MDR-TB); 3=a patient/case-based, real-time ERR system functions at national and subnational levels for both TB and MDR-TB; 4= a patient/case-based, real-time ERR system is functional at national and subnational levels for both TB and MDR-TB completely and meets WHO standard for TB surveillance data quality - i.e., data in the national database are accurate, complete, internally consistent, within timelines set, validated and free of duplicates and a data quality audit system is put in place (source: Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration Systems – Checklist and User Guide, WHO, 2014). Level: National	1		1 The recording and reporting tools are paper based and for aggregation of provincial data at national level, an Excel worksheet is used.

10.2.1	Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden have been implemented	Indicator Value: Yes/No Level: National	NO	YES	STTA for a data quality assessment based on "Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration System" was provided from August 1-12, 2016[2]
10.2.6	% of operations research project funding provided to local partner (provide % for each OR project)	Indicator Value: Percent Level: Challenge TB geographic areas Numerator: Amount of operations research project funding provided to local partner by Challenge TB during a year Denominator: Total Challenge TB operations research budget during the year of assessment.	0	0	No OR was started in Year 2. The proposal was not approved.
10.2.7	Operational research findings are used to change policy or practices (ex, change guidelines or implementation approach)	Indicator Value: Yes/No Level: National	NO	NO	No operational research in Year 2

[2] "Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration System" (WHO)

Table 18: The results of the assessment of standards and Benchmarks for TB surveillance

Standards and Benchmarks	Status
B1.1 Case definitions are consistent with WHO guidelines	MET
B1.2 TB surveillance system is designed to capture a minimum set of variables for reported TB cases	MET
B1.3 All scheduled periodic data submissions have been received and processed at the national level	MET
B1.4 Data in quarterly reports (or equivalent) are accurate, complete, and internally consistent *(For paper-based systems only)*	MET
B1.5 Data in national database are accurate, complete, internally consistent, and free of duplicates *(For electronic case-based or patient-based systems only)*	PARTIALLY
B1.6 TB surveillance data are externally consistent	MET
B1.7 Number of reported TB cases is internally consistent	NOT MET
B1.8 All diagnosed cases of TB are reported	NOT MET
B1.9 Population has good access to health care	NOT MET
B1.10 Vital registration system has high national coverage and quality	NOT MET
B2.1 Surveillance data provide a direct measure of drug-resistant TB in new cases	MET
B2.2 Surveillance data provide a direct measure of the prevalence of HIV infection in TB cases	NOT MET
B2.3 Surveillance data for children reported with TB (defined as ages 0-14 years) are reliable and accurate AND all diagnosed childhood TB cases are reported	NOT MET

Key results

- Stock out in data collection tool avoided: in reason of their stock out at national level, CTB give an emergency agreement to print and to ensure their distribution to the 7 CPLTs.
- The assessment on quality data has been done and 6 standards out 13 Benchmarks are met.

Challenges

- Reinforce quality of data to meet others standards benchmarks actually not or partially met
- The MoH, the Global Fund and other partners, have been looking to improve the HMIS by reviewing and harmonizing its tools and adjusting them in line with the new WHO guidelines, train service providers and introduce the DHIS2.This will be the next step for establishment of an electronic recording system for TB data in DRC
- CTB will set up an electronic register in 2 CPLTs in pilot sites and will contribute with other partners to meet more standard benchmarks actually partially met or not met.
- A tuberculosis surveillance survey among HCWs will be conduct in year 3 with the local technical assistance of an epidemiologist using a protocol already drafted

Sub-objective 11. Human resource development

During this year more staff health care workers has been trained and 93% of planned supervisions by national and provincial level has been done. The outcome indicators of this sub-objective are summarised in the table 19 below

Table 19: Outcome indicators for Sub-Objective 11

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target **Y2**	Result **Y**
11.1.2	% of planned supervisory visits conducted (stratified by NTP and Challenge TB funded)	Indicator Value: Percent Level: National and Challenge TB geographic areas Numerator: Number of planned supervisory visits conducted during reporting period Denominator: Total number of supervisory visits planned for the same period	ND	100%	**CTB –supported CPLTs** At the central level, Two visits to each province was planned Out of a total of 14 visits 13 were conducted: 93% (13/14) At the intermediate level, each focal point has realized 12 supervision visits to the health zone level, one supervision per month minus one month of vacancy Have been conducted 92% (77/84). The major problem identified was the lack of DOT in the health facilities and the absence of sputum result control in TB register
11.1.3	# of healthcare workers trained, by gender and technical area	Indicator Value: Number Level: National and Challenge TB geographic areas Numerator: Number of HCWs trained during the reporting period	NA	650 (250 FFP/LNAC, 350 CAD/ALTB) and 50 PNLT	CTB funded training for 1774 persons (M=1295, F=479) Technical area 1104-Enabling environment (M=707, F=397) 552- Comprehensive, high quality diagnostics (M=504, F=48) 115-Patient-centered care and treatment (M=81, F=34) 3-Human resource development (M=3)

11.1.4	% of funding programmed at country level vs. headquarters	Indicator Value: Percent Level: National Numerator: The amount of money budgeted for country level in the reporting period Denominator: Total country budget for the same period	ND	64%	In the country level: 73% 4,006,211/5,499,230
11.1.5	% of USAID TB funding directed to local partners	Indicator Value: Percent Level: National. Although CTB may be working with local partners in specific geographic areas, the overall total going to local partners at any level should be included in the numerator and compared to the overall country budget. Numerator: Amount of CTB country project funding directed to local partners during the most recent fiscal year Denominator: Total CTB country project budget during the most recent fiscal year.	0%	19%	11% 816,657/7,408,669 The 4 NGOs (ALTB, CAD, FFP, LNAC) signed a contract with the Union for TB activities and CAD, FFP, LNAC with MSH for the TBHIV activities. The total amount received was 11%. In Year 3, CTB will make efforts to increase the amount going to local partners.

Key results

- An average of 90% of supervision has been conducted at the central and intermediate level, specifically at the central level 93% (13/14) and 92% (77/84) at the intermediate level.
- 1774 persons (M=1295, F=479) were trained for TB diagnosis and treatment during Year 2 Three of these training will be of importance to improve TB patient prevention and care:
    - Training of laboratories technicians will improved the laboratories network in the 7 CPLTs 552 persons M=504, F=48)
    - International course on drug resistance TB will improve the expansion in CPLTs of short course regimen, the introduction of bedaquiline and provide training material for further national training courses on MDR TB 34 persons (M=27, F=7)
    - And the training of 3 CTB doctors who attended the International TB Course organized by The Union in Cotonou, Benin in September 2016: Drs Florent Longonya (Kasai Occidental Ouest), Tridon Iyale (Kasai Occidental Ouest), and Theddy Kazadi (Kasai Oriental Sud).

- The staff skill was strength and the **management and quality of service** improved TB detection including in keys population and treatment success in several CPLTS. This quality of care **will be performed** in the remind year of project life and sustainable for the future. The **gender issue** should keep the responsible to explore ways of engaging more women in year3

Challenges

- Training course at CPLT level and/or on job-training for the introduction of short course regimen
- Regular follow-up and formative supervision of sites after introduction of short course regimen in CPLTs
- Continue training for all HCWs included laboratories technicians eventually on job training in reason of HCWs turn over. In reason of gender balance, CTB will explore ways to engage more women in training planned in year 3.
- .

4. Challenge TB Support to Global Fund Implementation

Table 20: Current Global Fund TB Grants in DRC

Name of grant & principal recipient *(i.e., Tuberculosis NFM - MoH)*	Average Rating[3]	Current Rating	Total Approved/Signed Amount[4]	Total Committed Amount	Total Disbursed to Date
COD-T-MOH	NA	NA	US$13,831,917	US$9,283,004	US$7,021,923
COD-T-CARITAS	NA	NA	US$38,964,682	US$18,827,175	US$17,602,935
TOTAL	NA	NA	US$52,796,599	US$28,110,179	US$24,624,858

In-country Global Fund status - key updates, current conditions, challenges and bottlenecks

Current condition for COD-T-MOH and for COD-T-CARITAS

In accordance with the Global Fund Board Decision Point GF/B28/DP4, the Grantee acknowledges and agrees that the commitment and disbursement by the Global Fund of 15% of the Democratic Republic of the Congo's aggregate allocation of USD 701,418,878 for the 2014-2016 allocation period, which is equal to USD 105,212,831.7, is subject to the Global Fund's satisfaction with the Democratic Republic of the Congo's compliance with the Global Fund's policies relating to **counterpart financing**. The delay of disbursement at the provincial level still a bid issue in GF implementing process and the purchase process (long time instead order and reception)

Challenge TB involvement in GF support/implementation and any actions taken during Year 2

Challenge TB have been participated in the monthly coordinating meetings that gathered together the key partners involved in the GF grant implementation. During these meetings, mainly discussions were on harmonization of activities and theirs coordination and implementation: planning of MDR-TB and childhood TB training courses, drug storage at Bolloré site, printing data tools and guidelines, external midterm review; otherwise, it was decided that CTB will support the training of trainers in

[3] Since July 2015
[4] Source: http://www.theglobalfund.org/en/portfolio/country/list/?loc=COD&k=8821256b-ea63-4407-adbf-3ddf43878055 at the date of 18/10/2016

MDR-TB, train on TB pediatric the staff not yet beneficiated it, print data tools (quantity for one semester) and print the following guidelines: Pati 5, TB pediatric and MDR-TB training course materials. The MDR-TB training held in July 2016 with the support of international STTA.

The USAID mission has suggested hiring an advisor on procurement, supply management (PSM) staff to cover the gap in this position using the MSH Government Leadership Management service to recruit this person. This position will be located at the NTP office; the candidate is available.

5. Challenge TB Success Story

Witness- TB Treatment in Prison

My name is Kalonzo Tshibangu; I am a 36-year-old farmer from Bakwa Nsumpi. I was imprisoned in Mbuji Mayi prison in August 2013 and when I arrived there I was shocked at the conditions, there were so many people, crammed into tiny dormitories. Insufficient food only made the situation worse, it wasn't long before I started to cough and my health got steadily worse.

One day a team from Challenge TB team together with staff from 'Coordination Provinciale Lèpres Tuberculose' came to work with the prison doctors. When they saw how much I was coughing they gave me a small cup for me to provide a sputum sample, which they took away for testing. The prison doctor told us about Challenge TB and how they were finding and treating TB patients in our province. A few days later, my test came back and I was informed that I had TB. The doctor gave me drugs to take every day at the prison dispensary, I took them for six months and when I finished I felt well again.

At the end of 2015, I starting have the same symptoms again, and the prison staff took another sputum sample. The doctor discussed the situation with me and I told him that two of my prison friends were also coughing, so he asked all of us to give sputum samples. When the others received their results and they were told they needed to be treated for 20 months, I panicked when they were told they had a drug-resistant form TB, as my results were not yet back. A few days later the doctor came to tell me that luckily I did not have drug-resistant TB but that they would have to treat the TB more aggressively this time. I would have to be treated for eight months with two months of injections.

The treatment made me very tired, and the injections prevented me from sitting down, so I had to spend most of my time lying on my stomach. After two months I learned that the Challenge TB officials had recommended to the prison and administrative authorities that all the inmates with TB should be transferred to the Dipumba General Reference Hospital. The authorities agreed and in May 2016, we left the prison to continue our treatment in hospital.
When I arrived at the hospital I was extremely thin and weighed only 42kg. I took my drugs and suffered many side-effects, my joints were painful, pimples developed around my mouth, and the skin around my mouth became very black, I also had sores in my mouth and at the corners of my lips. But the doctors took good care of me and I managed to complete the course of treatment despite all of the challenges. When was declared cured of TB I was discharged from the hospital having gained over 12kg in weight. I did suffer a lot, but the health workers took good care of me and my friends, I hope to stay healthy in the future and never to return to prison.

Mr Tshibangu Kalonji declared cured and weighing 54kg when he left the General Reference Hospital Dipumba after completing his 8 months of TB treatment (Photo: Dr Thierry Kabengele)

6. Operations Research

No OR was started in APA2. A STTA to develop a protocol for the TB survey among HCWs was carried out from June 12-23, 2016 and it resulted in description of goal, objectives, methods (study design, population and sites study descriptions, sampling, data collection and analysis with questionnaire in annex), ethics issue and information about publication and dissemination. The next steps are going to be the approval by NTP, UNION, PMU and USAID.

7. Key Challenges during Implementation and Actions to Overcome Them

Table 21: List of major challenges and actions to overcome them

Challenge	Actions to overcome challenges
Technical	
Some MDR-TB patients faced delays in starting the 2nd line treatment	Each CPLT has been provided with a buffer stock of 2nd line TB medicines so that treatment can be started as soon as possible
The lack of data tools collection in the Health zone/ CSDTs	Provide a sufficient stock of data tools for one semester and develop an ERR
The absence of IPT distribution during the 1st or 2nd line TB drug distribution	Ensure IPT management as TB drub drug using the same tools or adjusted tools
Administrative	
Delayed approval of the work plan for year 2 (APA2).	Preapproval of critical activities was obtained before the full work plan was approved Effort of team to accelerate the implementation after approval Request of approval for new activities
Difficulty and delay to fill the position of Deputy Director and senior M &E	The position of Deputy Director was changed to Senior Program Officer and filled in June 2016.
Turnover of CTB staff was experienced (one Medical Focal Point and Junior Monitoring and Evaluation Officer resigned). Exit interviews revealed dissatisfaction about the salaries.	Request for salary increases above 5% will be submitted to PMU

8. Lessons Learnt/ Next Steps

Lessons learnt	Next steps
Technical	
The diagnosis of TB and MDR-TB improved during Year 2 by strengthening the National Reference Laboratory and the laboratories network through the following actions: maintenance of equipment at central and intermediate level, improve microscopy EQA, ensure laboratory technicians training, improve sputum transportation and expand access to Xpert testing	The National Laboratory Strategic Plan and its annual operational plan should be implemented and all actions described to strengthen laboratories network should to be maintained. Access to GeneXpert machines should be improved by setting up new Xpert machines and improving the sample transportation system to the Xpert sites
Active TB case finding done by the 4 NGOs	Another improvement of 4 NGOs partners' activities should be done by extension of

partners improved regularly since Year 1 by clear attribution of health zones with low TB detection to each of them.	the number of health zones covered by each of them and by the increase of their CTB budget and managerial capacities.
Risk prioritization for active case finding done with online WHO tool and the keys population in DRC have been determined during Year 2	Active TB case finding during Year 3 will focus on these key populations.
Improvement of MDR-TB quality of care done by the international MDR training course for CPLT staff. The training material has been elaborated. Short course regimen began in CTB–supported CPLTs.	Improve quality of care by adaptation of NTP MDR-TB guidelines putting in place a DSM at all level and ensure MDR national courses for the expansion of short regimen and use of bedaquiline for pre (XDR)TB.
The availability of first line and second line drugs during Year 2 ensured quality of care of TB patients.	Ensure the permanent collaboration with the Global Fund PRs and sub-recipients to ensure the availability of all TB drugs, ancillary drug and diagnosis tools.
IPT for TB contacts children and for PLHIV introduced during Year 2, however needs reinforcement and permanent availability of INH and absence of data collection	Improvement of IPT through HCWs training and permanent availability of INH, develop and distribute a data collection tool and improve supervision
Difficulties to obtain NTP data in time for analysis of activities results due to long delay for data validation and availability of NTP data	Ensure timely data validation meetings at regular intervals and establish an electronical register in pilot sites in 2-3 CPLTs.
Less females than males HCW are trained during Year 2.	Need to ensure equal opportunities for female and male HCWs to attend CTB training sessions.
Administrative	
Improvement of coordination since Year 1 between CTB and NTP staffs ensured a better implementation of activities and results during Year 2	Continue and improve this coordination by monthly meetings and regular (almost daily) telephone and email contact with NTP staff.

Annex I: Year 2 Results on Mandatory Indicators as well as National Data on the Number of pre-/XDR-TB Cases Started on Bedaquiline or Delamanid

MANDATORY Indicators					
Please provide data for the following mandatory indicators:					
2.1.2 A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Score as of September 30, 2016	2	N/A	**Substantial**	Workshop, meeting for validation, support STTA and PMU technical adviser all were involved to finalize the NSLP and OP . The Strategic and operationnal plan was approved in July 2016 and will be follow in APA3	Provide relevant score in line with the indicator definition as presented in CTB M&E framework. Send a copy of current national TB laboratory operational plan to your PMU M&E Officer.
2.2.6 Number and percent of TB reference laboratories (national and intermediate) within the country implementing a TB-specific quality improvement program i.e. Laboratory Quality Management System	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**

Number and percent as of September 30, 2016	33,3% (1/3)	N/A	**Limited**	CTB supported a workshop to have all procedure manuel as first step of accreditation SLMTA score1	Under additional information, provide a score/rating for every reference laboratory implementing LQMS, either the "GLI Stepwise Process towards TB Laboratory Accreditation" (scoring = phase 1-4) or SLIPTA/SLMTA for TB (scoring=stars 1-5). (Reference: Laboratory Quality Management Systems Handbook; http://www.who.int/ihr/publications/lqms/en/)
2.2.7 Number of GLI-approved TB microscopy network standards met	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Number of standards met as of September 30, 2016	5	N/A	**Limited**	The standards met: 1,3, 6, 8, 11 the others standards will be perform in the coming year.	This indicator measures whether or not a country has assessed and met the 11 GLI-approved standards for the TB microscopy network. Please send the completed CTB checklist assessing the fulfilment of the requirements for each standard to your PMU M&E Officer. In the additional comments column, provide a list of the standards (number only) that are met.
2.3.1 Percent of bacteriologically confirmed TB cases who are tested for drug resistance with a recorded result.	**National 2015**	**CTB 2015**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Percent (new cases), include numerator/denominator	0,14% (104/76,620)	0,16% (37/23,007)	**Substantial**	Sample transportation, staff training and local STTA took place. The NTP does not disaggregate the data on new and previously treated cases (although a majority of cases are previously treated)	This indicator measures the percentage of bacteriologically confirmed TB cases that are tested for drug resistance and also have results recorded in the TB register (disaggregated by new and previously treated cases). Please note that drug resistance testing includes phenotypic (culture DST) and genotypic (molecular DST by GeneXpert, LPA or
Percent (previously treated cases), include numerator/denominator	8% (351/4,341)	6% (86/1,541)			

Percent (total cases), include numerator/denominator	0,60% (455/80,969)	0,50% (123/24,548)			other molecular technologies).
3.1.1. Number and percent of cases notified by setting (i.e. private sector, pharmacies, prisons, etc.) and/or population (i.e. gender, children, miners, urban slums, etc.) and/or case finding approach	**National APA2**	**CTB APA2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Number and percent	*Fill in data in "Ind 3.1.1 - APA 2" worksheet*	*Fill in data in "Ind 3.1.1 - APA 2" worksheet*	**Substantial**	See separate sheet	Please completed the separate worksheet "Ind.3.1.1 - APA2"
3.1.4. Number of RR-TB or MDR-TB cases notified	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Total 2015	501	99	**Substantial**	Total RR or MDR update at 501 in 2015. previsiouly 455 was notified 46 was missed	Number of laboratory-confirmed cases of rifampicin-resistant TB (RR-TB) or multidrug-resistant TB (MDR-TB) identified among all TB patients (pulmonary or extrapulmonary; new, previously treated or unknown treatment history).
Jan-Mar 2016	126	29			
Apr-June 2016	128	33			
Jul-Sept 2016	149	41			
To date in 2016	403	103			
3.2.1. Number and percent of TB cases successfully treated (all forms) by setting (i.e. private sector, pharmacies, prisons, etc.) and/or by	**National 2014 cohort**	**CTB 2014 cohort**	**CTB APA 2 Investment**	**Additional Information/Comments**	**Notes**

population (i.e. gender, children, miners, urban slums, etc.).					
Number and percent of TB cases sucessfully treated in a calendar year cohort	86% (100,866/117,214)	86% (29,634/34,540)	**Limited**	Data for all cases available. No data by setting or population. Data for TB cases sucessufully treated among PTB+ for cohort 2014 is folowing: for national level - 89% (66,640/75,055) for CTB level - 90% (19,840/22,089)	Under additional information (Column E), give disaggregated data by setting (i.e. private sector, pharmacies, prisons, etc.) and/or by population (gender, children, miners, urban slums, etc.) and/or risk population groups defined by national policy (IDUs, diabetics, prisoners, etc.). There may be overlap between settings and groups. Disaggregation by risk population is required in contexts where Challenge TB is providing treatment support for a specific group according to the annual work plan or in contexts where operations research allows for disaggregation and comparison across groups.
3.2.4. Number of patients started on MDR-TB treatment	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Total 2015	455	99	**Limited**	**National level data for the quarter from July to September 2016 is partial until september 19, before national validation.**	The number of bacteriologically confirmed, clinically diagnosed or unconfirmed MDR-TB cases started on second-line treatment during the reporting period. Unconfirmed MDR-TB cases are those awaiting C/DST results. RR-TB may fall under confirmed or unconfirmed depending on the country's MDR-TB diagnosis algorithm.
Jan-Mar 2016	118	29			
Apr-June 2016	121	33			
Jul-Sept 2016	90	40			
To date in 2016	329	102			
3.2.7. Number and percent of MDR-TB cases successfully treated	**National 2013 cohort**	**CTB 2013 cohort**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**

Number and percent of MDR-TB cases successfully treated in a calendar year cohort	Getting from WHO	49%(26/53)	**Substantial**	Low TSR was due to a 20 month MDR-TB treatment regimen treatment that is associated wiht a high number of patients who are lost to follow up. Nutritional support, biological test, and management of adverse drug effects were provided by CTB support	The proportion of confirmed MDR-TB patients successfully treated (cured plus completed treatment) among those enrolled on second-line TB treatment during the calendar year. Under additional information (Column E), as applicable, give disaggregated data by HIV status, and XDR status. RR-TB may fall under confirmed MDR-TB depending on the country's MDR-TB diagnosis algorithm.
5.2.3. Number and % of health care workers diagnosed with TB during reporting period	**National 2015**	**CTB 2015**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Number and percent reported annually	N/A	N/A	**none**	It is planned that this indicator be collected from a sample of 3,000 health care workers in APA3.	This indicator measures the percent of healthcare workers (HCWs) diagnosed with TB (all forms) annually (disaggregated by gender and age). This measurement may require a special study using a validated tool and/or methodology.
6.1.11. Number of children under the age of 5 years who initiate IPT	**National 2015**	**CTB 2015**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Number reported annually	951	10	**none**	The NTP dissemintated the tools in August 2016. not all CPLT became to fulfil this data at the same time	The number of children under the age of 5 years who initiate isoniazid preventive therapy (IPT) during the reporting period.

7.2.3. % of activity budget covered by private sector cost share, by specific activity	National APA 2	CTB APA 2	CTB APA 2 investment	Additional Information/Comments	Notes
Percent as of September 30, 2016 (include numerator/denominator)	N/A	N/A	**None**	CTB/DRC didn't have private cost share in Year 2	This indicator measures the proportion of CTB project activity budget covered by private sector cost share (if not monetary, will require estimation of costs) by specific activity.
8.1.3. Status of National Stop TB Partnerships	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Score as of September 30, 2016	2	N/A		National Stop TB Partnership had adequate organizational structure in place since August 30, 2016	Provide relevant score in line with the indicator definition as presented in CTB M&E framework. Please send a completed CTB questionnaire assessing the status of National Stop TB Patnership to your PMU M&E Officer.
8.1.4. % of local partners' operating budget covered by diverse non-USG funding sources	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Percent as of September 30, 2016 (include numerator/denominator)	N/A	**55%** (126,266/228,730) for ALTB 43**%** (148,000 /340,000) for Femmes plus **48%** (151,399/317,226) for LNAC 56**%** (134,214/ 238,336) for CAD	**Limited**	Attached please find the questionnaires for these NGOs.	This indicator measures the proportion of CTB project local partners' operating budgets covered by non-USG funding sources. Please send copies of completed special questionnaires with collected relevant country level data among CTB local partners to your PMU M&E Officer.
8.2.1. Global Fund grant rating	**National APA 2**	**CTB APA 2**	**CTB APA 2 investme**	**Additional Information/Comments**	**Notes**

			nt		
Score as of September 30, 2016	Caritas: N/A MOH: N/A	N/A	**None**	In the Global fund site, the last perfomance is not available	Provide the score for every active TB grant in country based on the following: A1 Exceeds expectations A Good performance A2 Meets expectations B1 Adequate B2 Inadequate but potential demonstrated C Unacceptable
9.1.1. Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Number as of September 30, 2016	**3**	N/A	**None**	The stock out was for the second line drug specialy Cycloserine, levofloxacine and Kanamycine for over 30 days. No stockout for the 1st line treatment.	This indicator should be used to report the number of stockouts of any type of TB drug at any level of the health system that results in interruption of treatment.
10.1.4. Status of electronic recording and reporting system	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Score as of September 30, 2016	1	N/A	**none**	There is an electronic file for CPLT to the NTP central unit. However, paper-based system is used for both patient management and reporting.	Provide relevant score in line with the indicator definition as presented in CTB M&E framework.

10.2.1. Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden have been implemented	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Yes or No as of September 30, 2016	No	N/A	**limited**	STTA for a data quality assessment based on "Standards and Benchmarks for Tuberculosis Surveillance and Vital Registration System" was provided on August 1-12, 2016.	If assessed, please share a copy of the report/document assessing the status of relevant standards and benchmarks with your PMUE M&E Officer. In the additional comments column, include the country standards and benchmarks score (and year of completion) if an assessment was done.
10.2.6. % of operations research project funding provided to local partner (provide % for each OR project)	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Percent as of September 30, 2016 (include numerator/denominator)	N/A	N/A	**None**	No OR started in APA2. A STTA to develop protocol study TB survey among HCWs was provided on June 12-23, 2016	This indicator measures the proportion of **Challenge TB-supported** operations research project funding provided to local partner(s), by each OR project.
10.2.7. Operational research findings are used to change policy or practices (ex, change guidelines or implementation approach)	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**

Yes or No as of September 30, 2016	N/A	N/A	**None**	No OR started	Under additional information (Column E), please present relevant information for each individual project. Please send relevant special reports with qualitative details to your PMU M&E Officer.
11.1.3. Number of health care workers trained, by gender and technical area	**CTB APA 2**		**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
			Moderate		
	# trained males APA 2	**# trained females APA 2**	**Total # trained in APA 2**	**Total # planned trainees in APA 2**	
1. Enabling environment	**707**	**397**	**1104**	**1283**	
2. Comprehensive, high quality diagnostics	**504**	**48**	**552**	**548**	
3. Patient-centered care and treatment	**81**	**34**	**115**	**104**	
4. Targeted screening for active TB			**0**		
5. Infection control			**0**		
6. Management of latent TB infection			**0**		
7. Political commitment and leadership			**0**		
8. Comprehensive partnerships and informed community involvement			**0**		
9. Drug and commodity management systems			**0**		
10. Quality data, surveillance and M&E			**0**		
11. Human resource development	**3**	**0**	**3**	**3**	

Other (explain)	**0**	**0**	**0**	**0**	
Other (explain)	**0**	**0**	**0**	**0**	
Grand Total	**1295**	**479**	**1774**	**1938**	
11.1.5. % of USAID TB funding directed to local partners	**National APA 2**	**CTB APA 2**	**CTB APA 2 investment**	**Additional Information/Comments**	**Notes**
Percent as of September 30, 2016 (include numerator/denominator)	N/A	11% (816,657/7,408,699)	**Limited**	The NGOs are the only partners to receive US funds directly. An average amount by each partner is around $145,000. The organizational capacity will be strengthened to increase the amount to be provided to the local NGOs	This indicator measures the proportion of CTB annual funding directed to local partners.

Year/Quarter	Number of pre-/XDR-TB cases started on BDQ nationwide	Number of pre-/XDR-TB cases started on DLM nationwide	CTB APA 2 investment	Additional Information/Comments	Notes
Total 2014	0	0	**None**	reprogramming activities was suggested to integrate the new drug in CTB area	The number of pre-XDR and XDR-TB patients started on bedaquiline/delamanid during the reporting period as a part of the patient's treatment regimen.
Total 2015	2	0			
Jan-Mar 2016	0	0			
Apr-Jun 2016	0	0			
Jul-Aug 2016	0	0			
To date in 2016	0	0			

		Reporting period					CTB APA 2 investment	Additional Information/Comments
		Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Jul-Sept 2016	Cumulative Year 2		
Overall CTB geographic areas	TB cases (all forms) notified per CTB geographic area *(List each CTB area below - i.e. Province name)*						Moderate	TB detection seem increased each quarter in each province.
	Equateur Est	378	387	384		1149		
	Kasai Occidental Est	1318	1416	1300		4034		
	Kasai Occidental Ouest	1202	1224	1231		3657		
	Kasai Oriental Sud	3561	3738	3895		11194		
	Maniema	853	865	963		2681		
	Sankuru	659	662	715		2036		
	Sud Kivu	1260	1356	1451		4067		
						0		
	TB cases (all forms) notified for all CTB areas	9231	9648	9939	0	28818		
	All TB cases (all forms) notified nationwide (denominator)	30825	31446	31099		93370		
	% of national cases notified in CTB geographic areas	30%	31%	32%	#DIV/0!	31%		
Intervention (setting/population/approach)							**CTB APA 2 Investment**	**Additionnal Information/Comments**
Community referral	CTB geographic focus for this intervention						Substantial	The approach used by the NGOs were Sensitization (patients, key vulnerable population...) in health facilities and among persons living with HIV, Interviews of persons living near an index case through a door-to-door approach among hard-to-
	Equateur Est	57	94	129	79	359		
	Kasai Occidental Est	52	51	113	164	380		
	Kasai Occidental Ouest	86	68	141	141	436		
	Kasai Oriental Sud	73	72	203	596	944		

	Maniema	65	39	42	74	220		reach population. The fail detection in Q2 was due by the reduce of NGOs cover area and delay of starting APA2
	Sankuru	86	43	134	98	361		
	Sud Kivu	179	184	264	526	1153		
	TB cases (all forms) notified from this intervention	598	551	1026	1678	3853		
	All TB cases notified in this CTB area (denominator)	9231	9648	9939		28818		
	% of cases notified from this intervention	6%	6%	10%	#DIV/0!	13%		
Reported by private providers (i.e. non-governmental facilities)	CTB geographic focus for this intervention					0	Substantial	Among 69 private health facilities trained 31 were CSDT and all others were CST. A significant impact was showed in kasai oriental
	Equateur Est	3	8	9	12	32		
	Kasai Occidental Est	7	9	20	8	44		
	Kasai Occidental Ouest	24	49	31	34	138		
	Kasai Oriental Sud	202	364	281	294	1141		
	Maniema	18	13	32	7	70		
	Sankuru	6	8	13	15	42		
	Sud Kivu	6	16	26	22	70		
	TB cases (all forms) notified from this intervention	266	467	412	392	1537		
	All TB cases notified in this CTB area (denominator)	9231	9648	9939		28818		
	% of cases notified from this intervention	3%	5%	4%	#DIV/0!	5%		
Children (0-14)	CTB geographic focus for this intervention					0	Moderate	Data were collected in some health facilities trained in two provinces Kasai oriental, Maniema
	Equateur Est					0		
	Kasai Occidental Est					0		
	Kasai Occidental Ouest					0		
	Kasai Oriental Sud	119	76	87	109	391		
	Maniema			36	64	100		
	Sankuru					0		

	Sud Kivu					0		
	TB cases (all forms) notified from this intervention	119	76	123	173	491		
	All TB cases notified in this CTB area (denominator)	9231	9648	9939		28818		
	% of cases notified from this intervention	1,29%	0,79%	1,24%	#DIV/0!	2%		
Reported by prisons	CTB geographic focus for this intervention					0	Moderate	Quarterly Active case finding was used in more prison without TB service
	Equateur Est	4	5	6	1	16		
	Kasai Occidental Est	6	1	1	1	9		
	Kasai Occidental Ouest	8	2	6	2	18		
	Kasai Oriental Sud	29	84	14	29	156		
	Maniema	0	0	0	0	0		
	Sankuru	0	0	0	0	0		
	Sud Kivu	0	5	7	5	17		
	TB cases (all forms) notified from this intervention	47	97	34	38	216		
	All TB cases notified in this CTB area (denominator)	9231	9648	9939		28818		
	% of cases notified from this intervention	0,5%	1,0%	0%	#DIV/0!	1%		

Annex II: Status of EMMP activities

Year 2 Mitigation Measures	Status of Mitigation Measures	Outstanding issues to address in Year 3	Additional Remarks
Ensure proper procurement of catriges and Xpert machine that will be delivered directly to the PNLT storage facility and then to the 7 CPLTs CTB will advise the PNLT to follow the guidelines provided in the *Guidelines for Small-Scale Activities in Africa* for proper packaging and disposal of all public health commodities other than pharmaceutical drugs.	Specification done by NTP for GeneXpert Warehouse meets the conditions of storage for GeneXpert machines (temperature less than 15° Celsius with good air conditioning, absence of humidity)	To continue in APA3. Good maintenance of air conditioning.	
Ensure that the procedures for clinical waste management are followed. CTB will ensure that it is integrated into other training programs (lab training).	Staff trained in waste management during a general training on NTP guideline and lab training. A check list available in the Health facilities. Supportive supervision visits help to reinforce the waste management specifically Lab supervision and MDR-TB supervision	To be continue in APA3	
Ensure that incinerators are used regularly, waste is burnt thoroughly, and correct use of incinerators is maintained. (Waste has to be bagged, and transported into incinerators and burnt.)	Incinerators are used to burn waste. The supervision visits help to check this and to advise the HCWs.	To be continue in APA3	